

COFFIN, (A) J. O. Grew

ANNIVERSARY ORATION

DELIVERED BEFORE THE

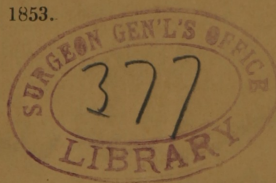
SOUTH CAROLINA MEDICAL ASSOCIATION,

AT THE

ANNUAL MEETING

IN CHARLESTON,

HELD ON 31st JANUARY, 1853.



BY AMORY COFFIN, M.D.

CHARLESTON, S. C.:
STEAM POWER PRESS OF WALKER AND JAMES,
No. 3. Broad-Street.

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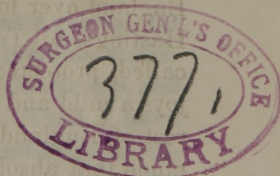
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1883.

ADDRESS.

OBSERVATIONS

ON THE INFLUENCE OF CLIMATE IN TUBERCULAR DISEASE.

GENTLEMEN:—The subject of the address, which it has pleased you to elect me to deliver to-day, is The Influence of Climate in the Treatment of Tubercular Disease. I have chosen it not only on account of its general interest, but because to me it is also of local interest. I have resided for some years past at Aiken, a village situated on the high sandy ridge which separates the head waters of the Edisto from those of creeks which empty into the Savannah river. Being so elevated, and the ground light and sandy, all water is rapidly drained off, and the soil is as sterile as the air is pure. Vegetation seems to progress as if deficient in its elements, with the exception of the lofty pines which scent the air with their terebinthinate fragrance. It is, in fact, essentially a pine barren.

Being easy of access, from its situation on the Rail-Road, it has, within the last few years, become a place of much resort for pulmonary invalids from all parts of the United States. It has long been favourably known as a retreat for convalescents from diseases of debility, and invalids suffering from unmedicable chronic diseases, from Charleston and the sea-coast of our own State in summer. Thus I have been favourably situated for observing the influence of climate as an agent in the treatment of Tuberculosis. I have premised these few remarks, which you will excuse, simply for the purpose of rendering more intelligible the relation in which I stand towards my subject.

The general interest attached to it has been of late years

greatly on the increase, and this is owing to two principal causes. The first of these is the greatly increased prevalence of consumption in our larger cities, from the many depressing causes following in the wake of civilization. In the Northern cities this is especially the case. It has even been supposed that England, herself, the hitherto favoured home of phthisis, is fast yielding this unenviable pre-eminence to the more northern of these States—New-England especially. The second, is the greater facility with which change of climate is now effected and the diminished expense attending it. What was formerly only within reach of the wealthy, can now be attained by those in more moderate circumstances. And yet there seems to be on the part of a great many physicians, who are led to advise their patients to seek change of air for the benefit of their health, a great want of information as to the particular localities in which the invalid will find the climate best suited to his complaint.

In England, notwithstanding the existence of the works of Clark, and other eminent writers on the subject of climate, we find Malta, Madeira, Montpelier, Florence, Rome, Naples, alternately recommended and decried.

After a few years enjoyment of popular favour, these places find themselves deserted, with nothing left but the numerous English graves to mark the reputation they once enjoyed.

So great has this disappointment been, that the principal object of those who have written on the subject of climate of late has been to turn the attention of physicians, and their consumptive patients, to the advantages of the southern coast of England over foreign countries. The bend of the coast from Hastings to Torquay, the Home Madeira as it has been called, protected as it is by projecting land to the west, enjoys a mild and equable climate compared with that of the rest of England. And yet we cannot, on reflection, but conclude that absolutely, and not comparatively considered, the influences of this section would be favourable only in a few instances. It is too relaxing, too much exposed to sea breezes, or to what experience has proved to be the very worst in

tubercular disease, the mixture of land and sea air, which possesses the disadvantages of both, without the favourable influence of either alone. We venture, confidently, to predict that in a few years a reaction will take place, and these resorts will fall into unmerited neglect. I say unmerited, because, doubtless, as we shall see hereafter, there are a certain number of cases to which such a climate is beneficial.

Again—the natural honing of consumptives for the warmer climates of the South of Europe will arise. They will not be satisfied with any thing short of Italy. This will, in its turn, influence their medical advisers, and again indiscriminately will they be shipped to die in foreign lands, away from friends, from home comforts, and all those little attentions and kindnesses which smooth the gradual passage of the consumptive, especially, to the grave. And here is indicated the great, the serious error, which is the cause of all this disappointment, and which has caused the efficacy of climate in the treatment of Tubercular disease to be called into question, namely: want of discrimination of the cases to which this treatment should be applied, and want of discrimination in the selection of the climate applicable to each particular case.

Certain places obtain a name as favourable resorts for consumptives—such as Havana, the Bermudas, Florida, Aiken, and some parts of Georgia—possessing little in common as regards climate, but a certain elevation of temperature. A physician is consulted by a patient who finds his health declining, his flesh and strength diminishing, and a certain little unpleasant cough recurring, and growing more and more obstinate at every return of cold weather, or perhaps a slight spitting of blood is the first symptom that alarms him and induces him to seek medical advice. The physician examines his lungs and finds signs of incipient tuberculization. He advises his patient in general terms to seek change of air, or if a Northern man *to go South*—and either leaves the selection of the locality to the patient, who, perhaps, knows as much about it as he does himself, or more frequently mentions the one of the above places whose name

is most familiar to him. Hence, as I have said, a most fruitful source of disappointment—a want of philosophic discrimination—a vague and empirical manner of prescribing, which the very same physicians, perhaps, good and eminent men in their way, would disdain to practice, when adapting other and pharmaceutical modes of treatment to other diseases.

When we are called on to prescribe for a case of disease, in order to arrive at a correct diagnosis, we carefully consider all the circumstances which surround the patient, investigate the causes which gave rise to the affection, the temperament which influences its character, and the thousand and one little details which a careful examination brings to light, and which are necessary to form to our mind's eye a finished picture of that individual case. We then proceed, in the best manner we are able, to advise and apply such remedies as our judgment and skill prompt us to. We do not content ourselves with prescribing for the name of a disease. Why should we not then be equally circumspect in prescribing hygienic change of air in pulmonary consumption. If there be any virtue in it, and that there is when judiciously employed, my own observation alone would justify me in asserting, it must be administered with a due regard to all the circumstances connected with each individual case.

Let me then, first, invite your attention to the nature of the disease we are called on to combat by this powerful agent, and to the varieties it may present.

Tuberculosis, one of the *dyscrasiæ*, is generally allowed to be a disease of debility. The causes which gave rise to it, are, in almost every instance, of a depressing character—they are such as sink the system below par. They may be moral in their nature—such as disappointed affection, anxiety of mind, prolonged watching and attendance on the sick, over-eagerness in the pursuit of gain, (especially when followed by disappointment,) either from the desire and necessity of obtaining the means of life, or from a much more common cause, and one that is becoming daily more prevalent, the sheer unmitigated love of lucre—or they may be physical, such as imperfect assimilation and nutrition,

brought on by the use of food either intrinsically indigestible, or rendered so by the improper mode of preparing it, or by the manner in which it is consumed; or, again, some previous disease, either debilitating itself, or too debilitatingly treated. Even in those cases, not so numerous as they were once supposed, where hereditary transmission is traceable, some depressing circumstance is usually found to be the immediate cause of the local development of the disease.

Its local expression in the lungs is favoured, there is no doubt, by the action of cold and moisture on the skin and bronchial mucous membrane. Indeed I have lately seen it asserted by an experienced English physician, that tubercular deposit in the lungs is always preceded by bronchitis.

The disease may then be said to consist of two elements—the general diathesis and the local pulmonary affection, and these may exist in very various proportions to each other.

We often find, and principally in hereditary cases, patients whose general appearance, form of the chest, figure, complexion, &c., indicate a general tubercular tendency, but in whom we will be able to discover only the signs of a few scattered tubercles in the lungs.

On the other hand, we as often see cases in which, with an otherwise good and sometimes even robust constitution, pulmonary tubercles have been developed by some one of the forementioned causes, without there being the least *natural* tendency to the tubercular dyscrasia—cases of “accidental phthisis,” as Dr. Pollock terms them. These are both theoretically and practically the most amenable to treatment and hygienic influences, as it has been asserted by some of the highest authorities on the subject, that the tendency of the local disease is towards a cure, which would be effected were it not for the constant renewal of the sources of irritation. Between these two extremes we have every possible variety of proportion, but in the great majority of cases we are obliged to combat these two elements at once, and experience has shown how little drug-medication has in arresting their progress. None at all, indeed, as long as the patient is still exposed to the atmospheric influences which favoured the development of at least one of them. He must

then be brought away from them, and placed in a climate which is rather tonic in its nature, unirritating to the lungs, and which will allow him to pursue the most freely, and for the greatest length of time, those amusements and exercises, which while they strengthen his body, divert his thoughts from himself and his symptoms.

Of such climates we may count three classes.

1st. The warm and moist or insular. Under this head may be comprised the climate of Havana, and that of the beautiful islands of the Caribbean Sea, the peninsula of Florida, and the Bermudas, including the sea voyage thither, in this hemisphere corresponding to that of Madeira, Malta and the Italian peninsula in the eastern.

2d. Much attention has been drawn of late years to the advantages derivable from the influence of a cold dry atmosphere, such as may be found among the green and white mountains of the northern States, upper Canada, or nearer home in those sections of our own State and North Carolina, which lie in or near the Blue Ridge, such as Greenville, Pendleton and the old Buncombe, now Henderson county of North Carolina—in Europe, Sweden and Norway. And

3d. The comparatively mild and dry or pine barren climate.

Until within a few years back the warm and moist insular climates have been those most preferred by physicians and patients. Not acting much on the skin, but relaxing the bronchial mucous membrane, and inducing a freer secretion therefrom, they in this manner relieve pulmonary congestions, give the lungs a better opportunity of recuperation, and are thus eminently serviceable in cases of incipient consumption, and those cases we have before alluded to as accidental phthisis—where the general tubercular diathesis is slight compared to the local affection, where, in an otherwise healthy constitution, tubercular development has been induced by temporary depressing causes as disappointment, anxiety or prolonged watching.

The patient relieved of his dyspnœa, and thoracic pains and stricture, feels bouyant and light, interested by change of scene, his attention arrested by the charms of tropical

scenery, he forgets the home cares, the cause of his disease, and the healing power of nature progresses unopposed in its work of cicatrizing small cavities, or of rendering indolent, tubercular deposits.

Elderly and feeble persons, too, whose power of developing heat is small, who enjoy more than any thing the bright sunshine, and are depressed by even moderate cold, have their comfort promoted and their life prolonged by resort to a climate of this class.

But for cases which have proceeded further than mere incipency, where the tendency to softening is greater, where the constitution participates more largely in the disease, and especially for patients from high northern latitudes, these climates are too relaxing, too debilitating. The increased bronchial secretion, instead of being only sufficient to relieve pulmonary congestion, is carried to such an extent as to exhaust the patient. Digestion, the integrity of which is so essential, begins after a while to suffer, assimilation is deficient, then ensue further debility, fresh deposit of tubercles, softening, hectic, and so on to the end.

It is only recently that the attention of physicians has been drawn to the advantages derivable in some cases of consumption, from a climate of an exactly opposite character—a cold dry air; so cold indeed that all the moisture of the atmosphere is congealed. The air is completely and absolutely dry. Such a climate is found in the greatest perfection in some parts of upper Canada.

The bracing and invigorating effects of a cold frosty morning, are familiar to all of us. The circulation is quickened, physical activity is heightened, the appetite is increased, and respiration, digestion and other functions seem, as it were, to proceed with greater vitality. This heightened action which is apparently only an answer of nature to an increased demand made upon her, has been made the foundation of a novel practice of sending consumptives to a more northern and colder instead of a more southern and milder region. Experience is yet wanting by which the practical efficacy and success of this plan can be tested, but to judge of it theoretically, I should say that if it is to be beneficial in any

cases, it must be so in those of a character opposite to such as we have already considered as improveable by the first class of climates. Such for example where the local disease is not extensive, where the general constitution requires strengthening and bracing up, and more particularly where digestion is at fault—where indeed depraved or imperfect nutrition is the prime cause and origin of the disease. In such cases we can easily conceive that the tonic action of a dry cold, and the thereby induced desire for exercise, would be highly serviceable. But the proportion of such cases to the whole number of consumptives is small, and the stage of the disease to which such a climate is applicable is *comparatively* limited, for although in such cases the progress is slow, and the period during which some change of air is likely to be of service, is more protracted than in the first class of cases, yet there arrives a time when the economy has not vitality enough left to react, when nature can no longer respond to the call made upon her.

And then we must remember that although moderate cold acts as a tonic stimulant, extreme cold, even though dry, has a sedative and depressing effect, particularly on previously enfeebled systems. Females and old persons will not bear this variety of climate well. Their calorific powers are not sufficient to bear up against the cold, and instead of acquiring health and strength by active out-door exercise, they would feel more inclined to sit by the fire and mope.

It is best suited to male adults who have constitution and strength enough yet to shoulder a gun in pursuit of game, or mount a horse and enjoy a brisk canter of a frosty morning.

The third variety of climate, the pine barren climate, is much milder, though sufficiently cold to be tonic and extremely dry, but its dryness is owing to the fact of the great scarcity of water, and not to its being congealed by frost.

The winter temperature is somewhat lower than that of the coast, the cold not being moderated by the vicinity of the sea, but yet the thermometrical average is sufficiently high for it to be classed as comparatively mild, and its great dry-

ness makes its effect very different from that of the insular climate already described.

I would say that its principal perceptible effect was a derivation from the lungs to the skin, and sometimes to the abdominal organs, this latter not in the shape of diarrhœas, but rather of hepatic and splenic congestion, which, if Rokitauský's views are correct, would induce that state of venosity which he considers antagonistic to Tuberculosis. This, however, is only conjecture; but the increase of cutaneous action is very marked, and the relief thereby afforded to the lungs is proportionately great. With an air comparatively free of vapour for the æration of the blood, which process is consequently more easily and readily performed, and the determination of this fluid to the surface, lessening internal congestion and stasis, we often see the dyspnœa considerably lessened and gradually disappear, the secretion become more scanty, and the sputa of a lighter colour, and less purulent character.

In the more favourable cases, while the patients comfort is thus promoted, the disease assumes a less active, a more chronic character. The drain on his strength being lessened by the diminution of the purulent secretion, the patient may gain flesh, and the progressive gain of flesh is one of the best symptoms.

The climate is not too warm to counter-indicate or render disagreeable the use of Cod Liver Oil, and nourishing and fatty food—nor too cold to prevent all but the most feeble, and those in whom the disease has progressed to an incurable point, from taking sufficient exercise to assist in the digestion of them. To such a climate may be sent with a fair prospect and hope of benefit, such cases as in the proportion of the two elements of the disease, the general taint and the local deposit lie between the two aforementioned classes—such as in whom, with general laxity of constitution, the disease has sufficiently advanced to make a decided impress on the lungs, but yet not an ineffaceable one. Local disease, there is either in the shape of crude tubercle or small cavities, but the tendency to progress is exceedingly slow and

chronic, or if softening has taken place to a greater extent, yet it has not been so rapid as to cause an exhausting drain on the patient's strength.

In them, *usually*, no hereditary contamination can be traced, but the development of the disease has been assisted by some of the accidental causes, mental or physical, prolonged error in diet or clothing, acting on not very strong constitutions.

If such patients, especially those from northern latitudes, are placed under the genial influences of one of these pine barren climates, made to take horseback exercise in proportion to their strength, have their diet and clothing regulated for them by those who understand the importance of particularity in these matters, they are almost sure to exhibit, in the majority of cases, for some time at least, the signs of improvement I have before enumerated. How long this improvement is to last, whether progressive and permanent, or only temporary, will depend much on the force of resistance and power of repair of the constitution.

Do not understand me as wishing to assert that climate will effect wonders in the cure of consumption. We all know how painfully numerous are still its victims notwithstanding change of air or Cod Liver Oil. All that I wish to maintain is, that much may be done towards the prolongation of life, much towards promoting the comfort of sufferers, and something towards lessening the number of those who fall a prey to this terrible scourge—the more terrible because its victims seem by some strange fatality to be chosen from among the most interesting, the brightest, the best beloved of families—and this may be effected by a careful choice of climate, as best suited to each particular case.

In favour of these pine barren climates, may be adduced the rareness of consumption among the natives, and what has often astonished me, its exceedingly slow progress when it is established—and this, notwithstanding the use of unwholesome indigestible food, badly cooked, dwellings open to all the winds, great carelessness in dress, much exposure to bad weather, and much poverty.

It may be said that this exemption is owing to the preservative influence of Fûsel oil, which is constantly and extensively consumed in the shape of bad whiskey. Possibly so—but yet we have evidence of the same fact in analogous climates, where this article is not so freely used. Dr. Haspel, in his work on the diseases of Algeria, says that he was struck with the infrequency of phthisis in North-Africa, only having had three cases out of 1480 patients, and but one death in 138 was from this disease.

He asserts that pneumonia never, under his observation, degenerated into tuberculosis, and he thinks that there is a kind of antipathy between the climate and the generation of tubercle in the lung, which goes far to confirm the belief of the antagonism between malarious diseases, very prevalent in that section, and phthisis.

If there be any foundation for this doctrine of the antagonism of disease, and every year seems to accumulate the proofs in favour of it, there is more probability of its existing between marsh diseases and phthisis than any other two classes of disease. But, in these pine-barrens, we have what would be malarious districts, if they were not prevented from becoming so by the absence of moisture. This one of the conditions necessary for the production of malaria, but not necessary for the antagonism of phthisis is wanting. In proof of this, I may adduce the fact, that after the heavy rains of the last summer, intermittent, remittent and pseudo-typhoid fevers and dysenteries prevailed extensively in these usually perfectly healthy sections of country; so that patients may be subjected to all the other influences without having to undergo the depressing effects of malarious disease. To benefit by this variety of climate, the patient must have lung enough left to breathe its dry, balmy air; stomach enough to digest good wholesome animal food, juices of meat, &c.; and, if thought advisable, to resist atmospheric vicissitudes, and assist respiration by the ingestion of the requisite quantity of Cod-liver oil; and, above all, general health, and strength enough to lead an out-door life and take a sufficiency of Sydenham's specific, horse-back exercise.

Further, he must have courage and patience enough to pursue this course, and subject himself to such climatic influences, if not permanently, at least for a series of years. He must not expect to eradicate entirely, in a few months, a disease which seizes so deeply on the constitution. The necessity for this has often struck me while watching the course of our Northern invalids. They arrive usually in the fall, or the commencement of winter, and improve during their stay. On the first arrival of warm weather, feeling better, they are anxious to return home. The next autumn they come back again, rather worse than when they left, proving that a Northern summer does not constitute a Southern climate. They rally, perhaps, but not as rapidly, nor as thoroughly as at first. Again they seek their home, and we either hear no more of them, or that they will not return again. Consequently, if such patients as we have described, find themselves doing well under change of climate, they should continue so as long, and as uninterruptedly as practicable. But, for those cases where softening proceeds unintermittingly, where the constitution is worn down by large suppurating cavities, by consequent hectic, by colliquative diarrhœa and exhausting night sweats, there is but one climate to be recommended, and that is the aggregate of circumstances which are comprised under the name of home, with the long-enduring, never-wearying love and attention of friends and relatives, the kind nursing, the many little amenities and the accustomed comforts which cannot be purchased. 'Tis cruel to send such abroad. In the expressive words of Dr. Pollock, I may say—

“Could the home physician be ever placed in the position which has often been ours, that of being called on to perform the last sad duty which science owes to humanity, by numbering the days which yet remain; and, *face to face* with the patient, calculating with such exactness as we may, whether the powers of life will bear removal home, and *be* obliged to decide in the negative, such sufferers would rarely arrive to humble the pride, and wring the hearts of those who practice our profession abroad.”

And now, in taking leave of my subject, I would merely

say that these remarks have been made rather in the spirit of one who would invite attention to this important subject, than as considering them possessed of any interest themselves. They are such as have often passed through my mind during the long solitary rides of a country practice. I had last year but little time to put them into such finished shape as would be worthy of your attention.
